



Proposed NRC reorganization ends grant-paying function

A strengthened role for the Ministry of State for Science and Technology and the separation of the research and grant-disbursing functions of the National Research Council and the Defence Research Board were forecast in last week's Speech from the Throne at the opening of Parliament in Ottawa.

If proposed legislation goes through, there will be three independent grant-distributing councils: the Natural Sciences Research Council (which will also take care of technology), the Medical Research Council and the Humanities and Social Sciences Research Council.

The Humanities and Social Sciences Research Council is at present a part of Canada Council. The Defence Research Board, which has during its 25 year existence been a major source of research funds, will be fully integrated with the Department of Defence. Its grant-giving functions will be assumed by the various research councils.

The National Research Council, which has since the beginning of the First World War been the mainstay and coordinator of scientific and technological research in Canada, will carry on its laboratory activities. These are substantial. There are three divisions engaged in basic and ap-

plied research in the natural sciences and four divisions devoted to engineering.

Mme. Jeanne Sauve, the Minister of State for Science and Technology, commented later that the changes will be primarily organizational "and are aimed at a more efficient employment of Canadian scientific manpower and resources." She said that it was inevitable that any change in organizations of long standing would be construed by some as a criticism of those organizations, but such criticism was not intended and would certainly be unjustified.

Reorganization of NRC has frequently been proposed in the past. It was recommended, both in the report compiled several years ago for the Organization for Economic Cooperation and Development and also in that of the Senate Special Committee on Science Policy, known as the Lamontagne Committee.

Mme. Sauve said the Government felt, on the basis of advice it had received, that the background, methods and objectives of the three existing granting councils differed to such a degree that the overall efficiency of the granting system was less than optimum and there was a danger that some important objectives, such as the encouragement of inter-disciplinary research, might be receiving insufficient emphasis.

The throne speech also proposed that the Science Council Act should be amended to give the Council a set of clear, broad objectives with a national orientation and a public information role.

The federal government has adopted the following definition of science policy: "Science policy is the rational generation and acquisition of scientific knowledge and the planned use of science and

technology in support of national goals".

The Speech from the Throne stated clearly that "the government intends that the Ministry of State for Science and Technology shall exercise an enhanced advisory and coordinating authority. This will involve the formulation of national science policies, objectives and priorities to guide departmental planning and to serve as a basis for assessing expenditure proposals."

One specific aim will be to ensure that government research is more closely tied to governmental objectives — an objective that would seem to strike at the strong traditional role of the National Research Council in fundamental research.

The speech indicated that the government regards the provision of federal grants as essential in promoting research in the non-governmental sectors, including the universities, but it went on to state that the goal of the councils in distributing such grants would be to support a balanced development of knowledge and research capability.

"In the context of this," it stated, "the Councils must seek to encourage excellence in research, provide a base of advanced knowledge, assist in concentration of research on areas of national importance, ensure that regional considerations are taken into account in the build up of scientific capability, maintain a basic capacity for research training, encourage curiosity-oriented research and encourage research with a potential contribution to national objectives."

"These objectives now become common to all granting councils. Mechanisms will be developed to coordinate their activities."

(See also page 2)

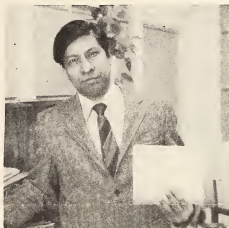
U of T's antidote for elm disease undergoes successful testing

One answer to Dutch Elm Disease, a protective chemical developed first in the Shade Tree Research Laboratory of the University of Toronto's Faculty of Forestry and later field tested by the Canadian Forestry Service, may be commercially available before the end of the year.

The product is called CFS 1020 and is a systemic fungicide. It is injected into a root of the tree to be protected, with a small over pressure of one-half atmosphere, and migrates upwards via the vascular system of the tree to its extremities. The Dutch Elm fungus, which is normally carried from tree to tree by a flying insect, will not take hold on trees so protected.

The Shade Tree Laboratory, under the leadership of Prof. Eric Jorgensen, now with the Canadian Forestry Service in Ottawa, had for some years been screening various chemicals for fungicidal properties, when staff in the late 1960s came across a substance called benomyl, produced by the Dupont Company.

Dr. Martin Hubbes, professor of forest pathology in the Faculty of Forestry, explains that the problem with benomyl was that, while it had the required toxic



Dr. D. N. Roy of the Shade Tree Research laboratory holds initial \$5 cheque from Canadian Patents and Development Ltd., given in recognition of his contribution to the development of a new method of controlling Dutch elm disease.

properties, it was not water soluble. Because of this, it was not readily taken up into the sap distributing system of the

(Continued on page 4)

Task force seeking ideas for policy on status of women employees

The Joint Business Affairs/Internal Affairs Task Force on Employment Conditions of Non-Academic Female Staff was established without specific terms of reference being provided by the parent committees. After careful consideration, members of the Task Force have agreed that the general purpose is to examine policies affecting the status of non-academic female staff, and, where desirable, to make recommendations for additions and improvements.

In particular, it is the intent of the Task Force to:

1. Review existing employment policy statements and current practices, with a view to identifying factors which inhibit existing policies from being implemented.

2. Develop and recommend new policies, where needed, which will (a) encourage career identification with the University; (b) facilitate job-enrichment; and (c) facilitate career development opportunities.

3. Develop and recommend new policies, where needed, for ending any existing sex discrimination and for breaking down sex-typing of employment categories.

4. Review those aspects of the University's budgeting procedures which affect working conditions and salaries, and to recommend possible changes for their improvement relative to non-academic female staff.

The Task Force membership was primarily drawn from the Governing Council. The following are members:

Prof. Gary Thaler (chairman); Mrs. Sonja Sinclair, Howard Levitt, and Mrs. A. M. Jamieson.

It is the intention of the committee to hold noon hour meetings in various buildings around the campus. At the time, interested members of the University community will be invited to make suggestions as to how the terms of reference can best be achieved. Written suggestions may also be submitted for transmission to the committee c/o the Secretary, Gary Wasserman, Room 232, Simcoe Hall. Confidentiality will be maintained if requested.

The aim of this committee is to examine major policy issues, and therefore items of a strictly personal nature or personal grievances should be referred to the other appropriate channels of recourse.

The next meeting of the Task Force will be on Wednesday, March 13, 12-2 p.m., in the Dean's Conference Room, Medical Sciences Building.

Meetings will also be held March 20, 12-2 p.m. Room 3050, Sidney Smith Hall, and March 27, 12-2 p.m., Croft Chapter House, University College. All sessions are open and everyone interested is invited to attend.

Deposit Governing Council ballots by noon March 13 to be valid

Mail balloting for the election of staff and student members to vacant seats in the Governing Council is now underway and continues until noon next Wednesday, March 13. Ballots have been sent to all eligible voters.

Any eligible voter who has received an incorrect ballot, or no ballot because of an error in records, may call the Office of the Governing Council at 928-2160 in order to obtain the correct ballot.

Completed ballots should be returned by Canada Post, Campus Mail or personal

delivery to the Office of the Governing Council, Room 106, Simcoe Hall, prior to 12 noon March 13, to be valid. Also, for the convenience of voters who may wish to deposit their ballots on campus, ballot boxes are placed in Erindale College Library and Scarborough College Library. The latter locations will be open during regular library hours until the 13th at noon.

Enquiries regarding the election may be directed to the Office of the Governing Council at 928-2160.

UTFA Council invites suggestions for 74-75 presidential candidates

The Constitution of the University of Toronto Faculty Association requires candidates for the presidency to be nominated by members of the UTFA Council. Members of the Association, however, are invited to suggest names to Council members.

Nominations are to be in the UTFA office by Thursday, March 14, and the election will be conducted by mail ballot of the membership in the following two weeks. The name of the new president will be announced at the annual meeting.

Members of the Council are:

Officers: W. H. Nelson, History; K. Yates, Chemistry; P. Corey, Hygiene; D. F. Shanno, Management Studies; S. M. Uzumem, Civil Engineering; D. Gauthier, Philosophy; W. Potter, Psychology; J. Swan, Law.

J. J. Balatincev, Forestry; R.J.K. Barker, Architecture; B. Brown, Philosophy; St. Michael's; M. Cockshutt, Li-

brary Science; A. C. Coman, Education; R. Cunningham, Nursing;

F. A. Delory, Civil Engineering; M. B. Doolan, Social Work; E. P. Downton, Dentistry; R. Falk, Music; M. G. Finlayson, History; T. Hofmann, Biochemistry; D. Huntley, Slavic Languages; A. Kruger, Political Economy; A. Latta, German, Trinity;

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P. Mathews, French, New; J. McClements, Physical and Health Education; M. Mueller, U.C.; M. R. Piggott, Chemical Engineering; A. P. Ruderman, Hygiene;

S. A. Schiff, Law; J. Stevenson, Arts and Sciences; G. R. Thaler, Erindale; M. Vilers, Food Sciences; G. Warkentin, English, Victoria; and L. Zakuta, Sociology.

How it's done at York University —unique summer sports seminars

Physical fitness makes sense — just ask Dave Smith, administrator of York University's Summer Sports Seminars, an educational enterprise in the increasingly popular promotion of amateur sport in Canada.

York University doesn't have to flash a can of bubbly or pave the way for cross-country skiers. The Summer Sports Seminars, since their inception seven years ago, have attracted sports associations throughout Canada and have given the university an international reputation in this particular field, as one of the few educational bodies to champion amateur sport in Canada. Their aggressive approach has done much to foster sport in Canada besides being an excellent calling card for the university proper.

Mr. Smith points out that the overall aim is to help amateur sport associations in North America. York provides the facilities, a place to meet in a group environment, and a member of the administrative staff. Seminars are a joint function. Each seminar committee for an individual sport consists of members of the university Athletic Faculty, representatives of the amateur sports governing bodies, and a member of the Summer Sport Seminar administration. The committees discuss the content and direction which the seminar will take in their particular sport.

The summer line-up for 1974 is impressive: Seminars for rugby, volleyball, contemporary dance, art and science of coaching, competitive modern gymnastics, and badminton; a basketball clinic... and more.

The development of the Summer Sports Seminars has been spontaneous. The germ was planted seven years ago when the Ontario Gymnastics Association approached York with the aim in mind of starting up a jointly sponsored gymnastic school. It was a success.

This paved the way for further participation by athletic bodies. Four years ago dance and field hockey were added to the roster; then, the following year, volleyball. Last year eleven amateur sports associations participated. This year a competitive modern gymnastics seminar has been added with an impressive list of international coaching personnel: Costache Gheorghiu, national coach of the Rumanian Gymnastic Federation, and Natasa Bojin, member of the Yugoslavian National Women's Gymnastic Team.

Coaching is a serious business at York. Courses are taught in the art of proper coaching. The subject is approached in terms of the different levels of coaching from rookie status to international and Olympic contenders. The seminars include elite training camps. Last year there was a course in male and female gymnastics attended by invitation only and coached by top Russian gymnasts.

The Summer Sports Seminars attract people from all across North America, from every province in this country and the Yukon. Last year's count was 1,400, with participation ranging from high schools, public schools, coaching associations, Y's and community colleges.

With heavy emphasis on the coaching aspect, the seminars are in-depth sessions, with emphasis on safety techniques, body mechanics, the psychology of coaching and, of course, the mechanics of sport. The seminars are self-supporting and whatever money is left over is re-cycled into athletics: gym equipment, textbooks in use across Canada and written by the staff members of the athletic department at the university. Future plans are to expand into the area of mobile clinics and film loops.

Can education and sport go hand in hand? York University's unique venture has proved so.

Mme Jeanne Sauve's statement on science and technology policy

The following statement by the Hon. Jeanne Sauve, Minister of State for Science and Technology, was issued in Ottawa on the proposed reorganization of the National Research Council:

The increasing impact of science and technology upon the welfare and prosperity of mankind has kindled worldwide interest. Canada, in company with other technologically advanced nations, has recently examined the organization and procedures through which it develops and employs scientific knowledge and capability.

The Senate Special Committee on Science Policy has completed a very major study of the whole subject, and in addition, there have been other valuable studies such as that made by the OFCED. The government has given serious consideration to these studies and has reached the conclusion that sufficient evidence has been brought forward to justify a number of important decisions...

Events are, however, moving fast and the requirements of the nation call for new policies in science and technology in other fields. The powerful capabilities of Canadian federal science agencies need to be redirected towards new goals and their organizational structure must adjust to new circumstances.

The Development of Science Policy

Science policy has been described in the Throne Speech as a basis for "the rational generation and acquisition of scientific knowledge and the planned use of science and technology in support of national goals." The furtherance of this policy objective provides the basic reason d'être of the Ministry of State for Science and Technology.

As the Throne Speech indicates, the Ministry is to have a strengthened role. Its advice will increasingly be taken into account by Cabinet in relation to new science-oriented policies, many of which will originate in the operating departments, while others will be initiated within the Ministry itself. Its

impact will also be markedly increased in relation to the assessment of scientific programs and associated expenditures. Close cooperation between the Ministry and Treasury Board is developing in these areas and it is the intention to focus attention not only on the government itself, but also in the public domain, on the distribution and extent of expenditures in science and technology. This should assist Canadians to understand and to make sensible judgments regarding the way in which scientific and technological resources are being used and also help them to appreciate changes in the direction and emphasis in programs.

The Granting Councils

The government feels that, on the basis of the advice that it has received, the background, methods and objectives of the three existing granting councils differ to such an extent that the overall efficiency of the granting system is less than optimum and there is a danger that some important objectives such as the encouragement of multi-disciplinary research may receive insufficient emphasis.

The reorganization proposed involves separating the granting function of the National Research Council from the laboratories of the Council and, while leaving the laboratories under the existing title, giving responsibility for the grants to a new council entitled "The Natural Sciences Research Council".

The second change involves separating the social sciences and humanities from the existing Canada Council and, while leaving the present Canada Council the responsibility for support of the arts, establishing a new granting council for the social sciences and humanities.

The last of the existing three councils, the Medical Research Council, will remain unchanged and thus the new Council organization will consist of:

- The Natural Sciences Research Council,
- The Medical Research Council, and

The Social Sciences and Humanities Research Council.

As a means of ensuring effective collaboration among these Councils, it is proposed that there shall be an inter-council coordinating committee, chaired by the Secretary of the Ministry of State for Science and Technology and reporting to the Minister of State for Science and Technology.

National Research Council

When the proposed legislation is approved, then the National Research Council will no longer have a granting function with a national responsibility for operating its laboratories and associated functions.

The NRC will be oriented toward furthering economic, scientific and technological development in Canada. It will also continue to work for the development of new knowledge to which it has made great contributions in the past.

Science Council of Canada

The Throne Speech proposes that the Science Council Act be amended to give the Council a set of clear, broad objectives with a national orientation and a public information role. During its early history the Science Council concentrated to a major extent on providing advice to the federal government. The establishment of the Ministry of State for Science and Technology has required a clearer definition of the roles of the two organizations. It has also become apparent that there is a need for a board of

experienced scientists who can take a national position outside the framework of the federal government, maintaining close relationship with all sectors and reflect their interests, opinions and judgment. To this end the government will put forward legislation to amend the present terms of reference of the Council.

The Defence Research Board

In its 25 year history the Defence Research Board has provided an invaluable service to the Department of National Defence at a time when defence science was in its period of most dynamic growth. Changes in the role of the Department of National Defence, unification of the Forces, and reorganization which have taken place over the past few years have led to a situation in which the present structure of the Defence Research Board no longer fits comfortably into the overall structure of the Department. The demands for scientific capability remain high and the resources of the Board are a valuable asset to the Department. The present organization, however, owes its form to the National Research Council in which it was modelled, and it now seems appropriate to accept the scientific component of National Defence as being an integral part of the main structure. The government will therefore propose that the scientific and analytical staff and facilities of the Board be integrated into the general technical arms of the Department. The Board's present granting function will be integrated into the activities of the granting councils.

Spring and summer programs being planned at Benson Building

Anne Hewett, director of Women's Athletics in the Benson Building, looking very fit herself, insists: "If you put a volleyball in the middle of a gym, men will automatically pick it up and start tossing it around; women will first ask how to play the game."

This fact, concludes Prof. Hewett, proves one thing... women need more exposure... to the game, that is, and she and her colleagues have just the ticket — a year round program of activities and sports for University of Toronto's community of women that involves elements of fitness, competition and just plain fun.

Benson Building, though it is essentially geared for women on campus, is a multi-faceted environment with facilities and programs that incorporate not only undergraduates and frequent co-ed activities, but also members of the University staff, wives, and alumnae. It is a community-minded institution and its approach is tailored for the University at large.

Take, for example, the spring program...Prof. Hewett emphasizes the fact that it is "special". Unique, perhaps, for it is part and parcel of a seasonal athletic program that invites year round participation.

The Benson Building spring program has crash courses, every day, in tennis, archery, golf, physical fitness programs made to order for the individual and

followed up by evaluations. Instruction is given in basic life saving for mothers and children. Survival swimming is taught.

Prof. Hewett makes it clear that programs are flexible and can be suited to varying life-styles.

Benson Building's summer program is just as expansive as the season itself. Outdoor activities are plentiful — tennis (reservations can be made to ensure that you fit your game into a busy schedule) — a badminton program — aquatics — which improve your swimming style and earn life saving qualifications at the same time! — Olympic gymnastics — archery with competitions during the week — instruction in golf and opportunities to practice your strokes on the golf course and for fitness enthusiasts, fencing, karate and self-defence.

Programs for coaches are given in the summer. A coaching certification course in volleyball in co-operation with the Ontario Volleyball Association will be held. A two day program in methods of teaching golf will be given. In the planning stage is a two day archery workshop for high school teachers and community coaches.

To really make your program effective means follow-up and the faculty at Benson Building has ample plans for the winter months ahead. Meanwhile, enrolment in an athletic program now will build up stamina and enthusiasm for the coming summer.

Ph.D. Orals

Monday, March 11

Gerald M. Barber, Department of Geography, "Mixed Integer Programming Approaches to a Node-Network Development Problem." Thesis supervisor: Prof. R. D. MacKinnon. Room 108, 16 Hart House Circle. 1:30 p.m.

Harry Rhanor Gillette, Department of Zoology, "Microstructural and Ultrastructural Studies on Identified Neurons of the Abdominal Ganglion of *Aplysia californica*." Thesis supervisor: Prof. B. H. Pomeroy. Room 107, 16 Hart House Circle. 2 p.m.

Wednesday, March 13

Paul G. Baker, Department of English, "A Critical Re-Examination of D. H. Lawrence's Aaron's Rod." Thesis supervisor: Prof. W. J. Keith. Room 107, 16 Hart House Circle. 2 p.m.

Friday, March 15

Denise Mitchell, Department of Civil Engineering, "Torsion of Structural Concrete." Thesis supervisor: Prof. M. P. Collins. Room 108, 16 Hart House Circle. 2 p.m.

Friday, March 22

Paul G. Zomberg, Department of English, "The Language of the Sermon Verses in the 15th Century." Thesis supervisor: Prof. D. Fox. Room 107, 16 Hart House Circle. 2 p.m.

Marcel Danesi, Department of Italian Studies, "The Language of the Sermon Subaltern." Thesis supervisor: Prof. G. P. Clivio. Room 107, 16 Hart House Circle. 10 a.m.

Nominations open for 12 students to be elected to the SGS Council

Three student representatives will be elected to the SGS Council for each of the four divisions of the Graduate School. Nomination forms may be obtained at any graduate department office, the Graduate Students' Union office, and the School of Graduate Studies.

Student nominations will be open until 4 p.m., March 19. Completed nomination forms must be returned to the School of Graduate Studies prior to this time to be valid.

Elected members will serve for one year until June 30, 1975.

Election will be by mailed ballot.

The constituencies are:

DIVISION I The Humanities

Classical Studies
Comparative Literature
Drama
East Asian Studies
English
French Language & Literature
Germanic Languages & Literature
Hispanic Studies
History
History of Art
History & Philosophy of Science & Technology
Islamic Studies
Italian Studies
Linguistic Studies
Medieval Studies
Music
Near Eastern Studies
Philosophy
Sanskrit & Indian Studies
Slavic Languages & Literatures

DIVISION II The Social Sciences

Anthropology
Criminology
Culture & Technology
Education Theory
Geography
Industrial Relations
International Studies
Law
Library Science
Management Studies
Political Economy
Quantitative Analysis of Social & Economic Policy
Russian & Eastern European Studies
Social Work
Sociology

March colloquium on Theology of Barth

"Beyond the Theology of Karl Barth" is the title of the Karl Barth Society of North America's colloquium, to be held at Victoria University on March 22 and 23 under the auspices of the Toronto School of Theology. The program is:

Friday, March 22

9.15 a.m. "Scripture as Realistic Narrative: Karl Barth as Critic of Historical Criticism" - Prof. Hans W. Frei, Master of Ezra Stiles College and Professor of Religious Studies, Yale University.
11 a.m. "The Theological Achievement of Walter Bryden" - Prof. Donald V. Wade, U of T.

2.15 p.m. "Barth on Creation" - Prof. Kenneth Hamilton, Religious Studies, University of Winnipeg.
4.45 p.m. Annual business meeting.
6.30 p.m. Colloquium dinner. "The Question of the Absence of God" - Dr. Helmut Thielicke, Professor of Systematic Theology, University of Hamburg.

Saturday, March 23

9.15 a.m. "Karl Barth on the Decalogue" - Dr. Walter Harrelson, Dean and Professor of Old Testament, Divinity School, Vanderbilt University.

11 a.m. Semi-annual meeting of the executive of the KBSNA.

Those wishing to attend should get in touch with Prof. David Demson, 459 Briar Hill Ave., Toronto M5N 1M8.

Urban & Community Studies
Urban & Regional Planning

DIVISION III The Physical Sciences

Aerospace Science and Engineering
Applied Statistics
Architecture
Astronomy
Biomedical Engineering
Civil Engineering
Chemistry
Computer Science
Electrical Engineering
Environmental Science & Engineering
Geology
Industrial Engineering
Mathematics
Mechanical Engineering
Metallurgy & Materials Science
Physics

DIVISION IV The Life Sciences

Anatomy
Biochemistry
Botany
Clinical Biochemistry
Dentistry
Food Sciences
Forestry
Hygiene
Immunology
Medical Biophysics
Medical Science
Nursing
Pathology
Pharmacology
Pharmacy
Physiology
Psychology
Surgery
Zoology

Law will prepare a simple will for you

Ms. Marie Huxter, Director of Student Programs at the Faculty of Law, announces a clinic training program in will drafting. Members of the University Community - academic and administrative staff, students, and their spouses - interested in having a simple will prepared should get in touch with Ms. Huxter at 928-4908. Those interested will be accepted on a "first come - first served" basis. There will be no charge involved. The interview will be conducted and the will prepared by a practising lawyer. A small number of students (approximately five) will sit in on the interview and execution of the will. Two attendances will be required and will be scheduled between 8 and 9 a.m. in the morning or 5 and 6 p.m. in the evening. The first attendance will be during the week of March 18 and the second during the week of April 1.

The Faculty of Law cannot undertake to supply complex estate planning advice in this program. Should it appear that the particular circumstances of those wishing to participate involve advice of a greater sophistication than the program can offer, they will be advised by the lawyer in charge of the interview.

Botany's open house from March 16 to 22

Want to stroll among the coffee palms and banana trees? Or maybe the more austere charms of the cactus beckon you. But don't worry if a plane ticket to the Caribbean or the Mojave Desert is beyond your reach. You can examine flora from the exotic corners of the world as well as our own daffodils, tulips and hyacinths, at the U of T Botany Greenhouses.

Daily, from Saturday, March 16 to Friday, March 22, there will be open houses from 9 a.m. to 5 p.m. An interesting feature will be an exhibit of plants used for scientific research. The Botany Greenhouses are on College St. just west of Queen's Park.

STAFF NOTES

Arts and Science

PROF. C. T. BOLTON visited the University of Texas Nov. 15-16 to consult concerning the design of a micro-denominator system proposed for the David Dunlap Observatory.

PROFS. R. F. GARRISON and R. C. ROEDER were at the Goddard Space Flight Center in Greenbelt, Md. on Oct. 20 to attend a meeting of the Working Group to use the International Explorer Satellite planned for launch in December 1976. Prof. Garrison spent Jan. 9-22 observing at Las Campanas Observatory in Chile.

PROF. J. F. HEARD spoke to the Toronto Centre of the Royal Astronomical Society of Canada on Nov. 28 on "Spectroscopic Binaries Today".

PROF. HELEN S. HOGG was in Cambridge Mass. on Nov. 6 on a CBC assignment to interview Prof. Fred Whipple on Comet Kohoutek for CBC's "Nature of Things" on Jan. 7. She was interviewed concerning comets on the Betty Kennedy Show on Nov. 27 and Dec. 26 and on the Norm Perry Show on Jan. 5.

PROF. P. P. KRONBERG gave a colloquium at York University on Nov. 21 on "The Structure of Extragalactic Radio Sources". From Nov. 22 to 30 he observed at the National Radio Observatory at Green Bank, W. Va.

PROF. P. G. MARTIN during December and January observed at the McDonald Observatory in Texas and at the Kitt Peak Observatory in Arizona.

PROF. D. A. MacRAE attended a meeting of the Universities Space Research Association in Houston, Oct. 21-23. He also attended meetings of the

Directors of the Canada-French-Hawaii Telescope Project in Oahu on Nov. 15-16, Dec. 11 and Jan. 17-19.

PROF. J. R. PERCY gave talks as follows: to the Royal Astronomical Society of Canada Toronto Centre on Oct. 12 and Ottawa Centre Oct. 17 on "Astronomy in Cambridge: from Newton to Now"; to the Science Teachers' Association of Ontario, meeting in Hamilton on Oct. 26-27, on "Practical Hints on Teaching Astronomy"; and to the Niagara Falls Centre of the R.A.S.C. on Jan. 10 on "Recent Discoveries among the Naked-eye Stars". He also presented a paper at the American Astronomical Society meeting in Tucson on Dec. 4, and observed at Kitt Peak Observatory Dec. 12-19.

Physical and Health Education

PROF. SHEILA ROEMEKO was selected National Assistant Technical Director to the Canadian Modern Rhythmic Gymnastics Team which took part in the World Championships in November. She was also a guest lecturer at the Women's National Aquatic Forum held in Florida, in December.

Social Work

PROF. JOSEPH LAYCOCK attended the Annual Meeting and Conference of the Canadian Council on Social Development in Ottawa.

PROF. NATHAN MARKUS returned from a research leave in England where he was studying "Institutional Care and Services for the Elderly". His base of operations was the National Institute for Social Work Training in London.

SGS dean establishes committee to report on part-time studies

Dean A.E. Safarian has recently established a decaan committee of the School of Graduate Studies to consider part-time graduate studies. Prof. Milton Israel has agreed to chair this Committee.

The Committee will be asked to report on the following:

(a) Current opportunities for and problems in part-time graduate study in the University of Toronto;

(b) Other desirable approaches to such studies which would more fully realize their potential and resolve any problems, with an evaluation of the probable academic, financial and other effects at this University;

(c) any general modifications of or exceptions permissible to the residency requirements for the Ph.D. as a result of the above;

(d) any changes in procedure or regulations at this University that might be required by proposals put forward by the Committee.

The following persons have agreed to serve as members of the Committee: Associate Dean L. Zakuta, David Wren,

Profs. J. E. Cruise, S. H. Smith, S. Uzunen, Helen Carpenter, R. W. Morgan, D. Stager, G. Scott, J. Flinn and W. Main.

The Committee invites briefs or comments from interested persons or groups at this University. The Committee hopes to report to the Graduate Dean before the end of the winter term.

Wanted: 100 volunteers

Under the auspices of a Health Grant from the Department of National Health and Welfare, Dr. D. C. Smith is studying the absorption of mercury by dental personnel in Ontario. A comparison group is needed of people who do not work with or are exposed to mercury or mercury components. The Faculty of Dentistry is looking for volunteers willing to assist in this study by providing a small hair sample for chemical analysis. The results of the analysis will be communicated in confidence.

Those willing to participate should send name and address to Dr. Smith, Faculty of Dentistry, by campus mail.

Nominations for teacher awards

Nominations are invited for teaching awards of the Ontario Confederation of University Faculty Associations. The program was established to provide recognition to outstanding teachers in Ontario universities.

Nominations may be made by individuals or local faculty associations, faculty or college councils, university committees concerned with teaching and learning, local student councils, alumni,

etc. Part-time, as well as full time, faculty are eligible for nomination.

"Teaching" need not be narrowly defined - proficiency may extend beyond the lecture room, the seminar room, the laboratory or the faculty member's office.

Letters, and as substantial as possible supporting documentation, should be sent to Dr. S.F. Gallager, Chairman, OCUFA Committee on Teaching Awards, 40 Sussex Ave. Toronto M5S 1J7 by March 31.

'Competition in the open economy'

Prof. Richard E. Caves, one of the two Claude Bissell Professors in Canadian-United States Relations on campus this year, will give a lecture and hold two seminars on "Competition in the open economy" on March 14, 19 and 21.

The lecture, on "Competition in the open economy: a general view", will be given on Thursday, the 14th, in Cody Hall, Russell St. at St. George, at 8 p.m.

The seminars are to be held in the Upper Library at Massey College. On Tuesday, March 19, the subject will be "Competition and policy in post-war Japan", and on Thursday the 21st Prof. Caves will lead a discussion of "Market structure and public policy in Canada." Each seminar will begin at 4.10 p.m.

All members of the University community and of the public are invited to attend any or all of the sessions.

COMING EVENTS

Monday 11 March

LECTURE: Islam - "Islam in East and West Africa", Prof. W. Montgomery Watt, Department of Arabic and Islamic Studies, University of Edinburgh. Library Science Theatre, 4.10 p.m. (Islamic Studies)

LECTURE: - First in a series of three on "Science and Medicine: the Moral Dimension". "The Right of the Patient to be let alone". Dr. H. K. Beecher, Harvard Medical School. Medical Sciences Auditorium, 8 p.m. (St. Michael's College and Medicine)

LECTURE: Botany - "Observations on the Phylogeny of the Lycopersicon (tomato)". Dr. C. T. Rick, University of California. Room 7, Botany Building, 5 p.m. (SGS and Botany)

SEMINAR: - Full demonstration on how to complete 1973 income tax return; tax experts to answer questions; free advice. Medical Sciences Auditorium, 5.15 to 7.15 p.m. Repeated March 14. (Personnel Department and School of Continuing Studies)

SEMINAR: Transportation - "A New Role for Q/STOL". T. G. Dunkin, Coordinator, Marketing Development, De Havilland Aircraft of Canada, 5915 Ross Building, York University, 3 p.m. (U of T/York Joint Program in Transportation)

SEMINAR: Geology - "The Nature of Initial Geosynclinal Volcanism". Dr. A. Hynes. 128 Mining Building, 4 p.m. Refreshments 3.30 p.m. (Geology)

SEMINAR: Medicine - "The Role of Prostaglandins in LH Action on the Ovary". Dr. David T. Armstrong, University of Western Ontario, 417 Best Institute, 4 p.m. (Banting and Best)

MUSIC: - Organ recital by Dr. Charles Pecker, Convocation Hall, 5.05 p.m.
COLLOQUIUM: Computer - "Current Trends in Programming Languages and Automatic Programming". Prof. Thomas E. Cheatham, Harvard University, 202 McLennan Physical Laboratories, 4.10 p.m. (SGS and Computer Science)

Tuesday 12 March

LECTURE: Science - "The Watts Memorial Lecture - "Science and Society". Dr. Gerhard Herzberg (Nobel Prize winner for Chemistry in 1971). Meeting Place, Scarborough College, 8 p.m. (Scarborough)

LECTURE: Law - "Advocacy in Appellate Courts". J. J. Robinette, Q.C., Moot Court, Faculty of Law, March 12, 13 and 14, 4 p.m. (Law)

LECTURE: American Studies - "The Uses and Limitations of Social Science in Public Policy". Prof. Edward C. Banfield, 2118 Sidney Smith Hall, 4 p.m. (American Studies Committee)

LECTURE: Medicine - "Dopamine as a Neurotransmitter". Dr. D. R. Koenig, Queen's University, 2172 Medical Sciences Building, 5 p.m. (Neuroscience Institute, U of T and Toronto Neurological Society)

LECTURE: Medicine - "Studies in Ketogenesis". Dr. Daniel W. Foster, Professor of Internal Medicine, University of Texas Health Science Center, Dallas, 7231 Medical Sciences Building, 4 p.m. (Medical Science)

LECTURE: Flaubert - "Histoire secretes de la correspondance de Flaubert (ou comment on edite une correspondance)". Prof. Jean Bruneau, Department of Comparative Literature, Harvard University, 103 U.C. 4 p.m. (Graduate French)

LECTURE: Near Eastern - "Cultural Interchange between Greece and Ancient Egypt". Prof. R. J. Williams, Planetarium Lecture Room, ROM, 8 p.m. Free (Society for the Study of Egyptian Antiquities)

LECTURE/DEMONSTRATION: A rare Rosenkranz piano/forte (c. 1797) will be used. Dr. Dowell Multer, pianist, and Prof. Alan Harris, cellist, will perform the *Sonata Opus 5, No. 1 in F Major* by Beethoven, immediately following the film "The Ernst Rosenkranz Piano". ROM Theatre, 8 p.m. Free

SEMINAR: American Studies - "Urban Politics in the United States". Prof. Edward C. Banfield, Fels Center of Government, University of Pennsylvania, 2090 Sidney Smith Hall, 11 a.m. (American Studies Committee)

Wednesday 13 March

LECTURE: American Studies - "Adam Smith after Two Centuries". Prof. Edward C. Banfield, 2118 Sidney Smith Hall, 4 p.m. (American Studies Committee)

LECTURE: Archaeology - "The Current Archaeological Scene in Israel". Dr. William G. Dever, Resident Director of the Albright Research Institute of the American Schools of Oriental Research in Jerusalem, Planetarium Lecture Room, ROM, 4 p.m. Free (Graduate Near Eastern)

LECTURE/DEMONSTRATION: Dr. Dowell Multer, Director of piano and keyboard at State University College, Brockport, N.Y. discusses and illustrates pieces of Mozart's and Beethoven's era. ROM Theatre, 2 p.m. Free with Museum admission

COLLOQUIUM: Mathematics - "A Generalization of a Sylow Theorem". Prof. E. Snapper, Dartmouth College, 5017B Sidney Smith Hall, 4.10 p.m. (Mathematics) Note change of date from 12th and room change.

LITERARY READING: accompanied by English translation. Wacław Iwaniuk - Polish. Bishop White Gallery, ROM, 5.30 p.m. Free

PROGRAM: Women's Studies - "The Limits of Feminism". Faculty of Education, 7 p.m.

Thursday 14 March

LECTURE: Medieval - "Putting Names and Faces on the People in Late Medieval England". Prof. J. A. Rafitis, 106 U.C. 4.15 p.m. (Medieval Studies)

LECTURE: Economics - "Competition in the Open Economy: A General View". Prof. Richard E. Caves, Claude Bissell Professor of Canadian-United States Relations, Cody Hall, 50 St. George St. 8 p.m.

LECTURE: Health - "Research in Health Care Agencies: Problems, Issues, Possibilities". Shirley Simpson, Professor, School of Nursing, and Division of Health Services Administration, University of Alberta, Cody Hall, School of Nursing, 3-5 p.m. (SGS and Nursing)

LECTURE: Growth - "Patterns and Problems of Growth" series. "Growth Function in Animal (including Human) Populations". Dr. Donald Cant. Medical Sciences Building, 7.45 p.m. (Continuing Studies)

SEMINAR: American Studies - "Unheavenly City". Prof. Edward C. Banfield, 111, 15 St. George St. 11 a.m. (American Studies Committee)

SEMINAR: Environment - "Solid Waste Task Force with Emphasis on the Problem of Beverage Packaging". Prof. N. J. Hare, Consultant to the Solid Waste Task Force, Ministry of the Environment, 211 Haultain Building, 4 p.m. (Environmental Studies)

RESEARCH SEMINAR: Transportation - "Rail Relocation and Rerouting: A Case Study of Federal Involvement in Urban Transportation". J. W. Langford, 111 Coaches, 150 St. George St. 2 p.m. (U of T/York Joint Program in Transportation)

POETRY READING: - student reading. Upper Brennan Hall, St. Michael's College, 4.10 p.m. (English, St. Michael's)

MUSIC: - "Collegium Musicum, directed by Greta Kraus, Walter Hall, Edward Johnson Building, 2.10 p.m. No tickets, no charge (Music)

MUSIC: - "Music from Canada's first half Century". Artists: Walter Buczynski, piano; Stephen Chennette, trumpet; Mary Lou Falls, soprano; Elaine Keillor, piano and other faculty performers. Walter Hall, Edward Johnson Building, 8.30 p.m. Tickets \$3, students \$1.50. All proceeds to Scholarship Fund. Cheques payable "U of T"; envelope stamped addressed envelope (Music)

Friday 15 March

LECTURE: - S. D. Clark, McCulloch Professor of Sociology, Dalhousie University will speak on his paper "Movements of Protest in Post-War Canadian Society" (*Transactions of the Royal Society of Canada*, 1970). Upper Library, Massey College, 4 p.m. (Committee on Canadian Political and Social Thought)

Saturday 16 March

LECTURE: - "Flowers of the Swiss Alps". Professor Emeritus Richard M. Saunders. Joint meeting with Toronto Field Naturalists' Club. Convocation Hall, 8.15 p.m. (Royal Canadian Institute)

OPEN HOUSE: - Department of Botany. March 16 to 22, 9 a.m. to 5 p.m.

Sunday 17 March

DISCUSSION: - (3rd and last) "Integration of Values". Margaret O'Gara, Student-Faculty Centre Lounge, Brennan Hall (St. Michael's students)

Monday 18 March

LECTURE: - "Science and Medicine: the Moral Dimension" series. "Minors and Consent to Treatment". Prof. H. Krevor, Q.C. University of Western Ontario Faculty of Law. Medical Sciences Auditorium, 8 p.m. (St. Michael's College and Medicine)

MUSIC: - Organ recital by Eric Hanbury. Convocation Hall, 5.05 p.m.

SEMINAR: Geology - "Origin of Iron Ore by Diagenetic Replacement of Calcareous Oolite". Dr. M. Kimberley, 128 Mining Building, 4 p.m. Refreshments 3.30 p.m. (Geology)

Tuesday 19 March

LECTURE: Medicine - "The New Emi Brain Scanner". Dr. R. Ethier, Montreal Neurological Institute, 3153 Medical Sciences Building, 5 p.m. (Neuroscience Institute, U of T, and Toronto Neurological Society)

SEMINAR: Economics - "Competition and Policy in Postwar Japan". Prof. Richard E. Caves. Upper Library, Massey College, 4.10 p.m.

Wednesday 20 March

LITERARY READING: - accompanied by English translation. Robert Zend - Hungarian. Bishop White Gallery, ROM, 5.30 p.m. Free

PROGRAM: Women's Studies - "Sports". Faculty of Education, 7 p.m. Free

Thursday 21 March

LECTURE: - "Patterns and Problems of Growth" series. "Growth in Understanding of the Physical Cosmos". Dr. Helen Hogg, Medical Sciences Building, 7.45 p.m. (Continuing Studies)

LECTURE: History of Science - "Fever and Science in Early Victorian Medicine". Leonard G. Wilson, Department of the History of Medicine, University of Minnesota, 205 Library Science, 8 p.m. (IHST)

THEATRE: - "Marsh Hay" by Merrill Denison. Hart House Theatre, 8.30 p.m. (Closed Sunday and Monday) For reservations call 928-8668 (Drama Centre)

Nobel Prize winner Dr Herzberg speaks at Scarborough March 11-12

Dr. Gerhard Herzberg, the 1971 Nobel Prize winner in chemistry, will deliver the annual Watts Memorial Lecture at Scarborough College on Tuesday, March 12, at 8 p.m. in the Meeting Place. His subject will be "Science and Society."

In addition, Dr. Herzberg will give two other talks: on Monday, the 11th, at 3 p.m. in the faculty lounge, where he will have an informal dialogue with students (and with faculty members who feel that their knowledge of chemistry is too limited to follow the next day's technical seminar), and on the 12th at 2 p.m. in Room S-319 - a chemistry seminar on

his current work, "Spectra of molecular ions."

Dr. Herzberg, the first "Distinguished Research Scientist" of the National Research Council, is the third Watts Memorial Lecturer. The first was the late Right Hon. Lester B. Pearson and the second was Lord Anson, Provost of University College, London. The lecture series was established to honour Prof. B. F. Watts, who died in December 1968. Prof. Watts joined Scarborough College at its inception and played an important part in formulating plans and policies in its formative years. He was an exceptional teacher and a leader in his field of research, climatology.

U of T's antidote for elm disease

(Continued from page 1)

tree. This problem was overcome by Dr. Dilynday Roy, a chemist in the laboratory, who developed a chemical relative that was water soluble.

Preliminary research seemed to indicate that the new formulation had the necessary qualities. The next step was to test it in the field and here Edward Kondo of the Canadian Forestry Service took over. Dr. Kondo had obtained his doctorate in the Shade Tree Research Laboratory, working under Dr. Jorgensen, and was by then employed in the Great Lakes Forestry Research Centre at Sault Ste. Marie.

In 1971 Dr. Kondo, using a pressure injection system he had himself devised, and working in cooperation with the National Capital Commission, tried out the chemical on 15 trees in the Ottawa area. Later, the trees were felled and examined in great detail to find out what had happened to the chemical and the extent of distribution.

The results were promising and showed that CFS 1020 had penetrated throughout the whole tree, even reaching the leaves. The following year, 200 trees were treated, with similar results.

Canadian Patents and Development Limited had meanwhile taken out patents on behalf of the University of Toronto in the name of the workers and negotiations are now in progress to determine the ways in which CFS 1020 will be manufactured on a large scale and marketed. Each of the scientists involved received a cheque for \$5.00 from C.P.D. as nominal recognition of their contribution to this important development.

They and the University will receive further recompense if the invention is successfully licensed.

Dr. Hubbes warns that CFS 1020 is by no means a panacea. It is best suited to the protection of valuable trees, mainly in urban environments, since each needs individual attention. There is as yet insufficient evidence to indicate whether the chemical can offer a degree of protection to trees that have already been infected by the fungus.

NEXT BULLETIN ON MARCH 20

Because of the Governing Council election, the next Bulletin which will carry the results, will be published on Wednesday, March 20.